

SYSTEM AND METHOD FOR MEASURING A HIGH SPEED SIGNAL

Abstract

An apparatus is provided for measuring an output of a high-speed data transmission circuit. The apparatus includes a programmable reference voltage generator operable to generate a reference voltage that is variable between a plurality of levels. The apparatus also includes a quantizer to quantize an output of the high-speed data transmission circuit relative to the reference voltage level input thereto. Also included is a clock generator operable to generate a clock having a transitioning time (rise-time, fall-time or both) that is less than one quarter of a minimum switching period of the output of the circuit. Finally, the apparatus includes a sampler operable to sample the quantized output with the clock to produce a plurality of samples which measure the output of the circuit.